List of Contents

NUMBER 1

A. H. Fanney and S. A. Klein (U.S.A.)	1	Thermal performance comparisons for solar hot water systems subjected to various collector and heat exchanger flow rates
D. Büttner, R. Caps, U. Heinemann, E. Hümmer, A. Kadur and J. Fricke (F.R.G.)	13	Thermal loss coefficients of low-density silica aerogel tiles
F. Gutiérrez (Mexico)	17	Behavior of a household absorption-diffusion refrigerator adapted to autonomous solar operation
Allan T. Kirkpatrick and Dallas D. Hill (U.S.A.)	25	Mixed convection heat transfer in a passive solar building
N. K. Bansal, R. L. Sawhney, Anil Misra (India) and A. Boettcher (F.R.G.)	35	Solar sterilization of water
Panayotis Theodore Tsilingiris (U.K.)	41	An accurate upper estimate for the transmission of solar radiation in salt gradient ponds
Frank C. Kaminsky and Robert H. Kirchhoff (U.S.A.)	49	Bivariate probability models for the description of average wind speed at two heights
A. W. Harrison and C. A. Coombes (Canada)	57	Angular distribution of clear sky short wavelength radiance
U. Amato, V. Cuomo, F. Fontana, C. Serio and P. Silvestrini (Italy)	65	Behavior of hourly solar irradiance in the Italian climate
		Letter to the Editor
D. J. Close (Australia)	81	Comments on "Analysis of a V-groove solar collector with a selective glass cover" by R. M. S. Gama, J. A. O. Pessanka, J. A. R. Parise and F. E. M. Samboya
		NUMBER 2
		Articles
V. A. Graham (<i>Trinidad</i>), K. G. T. Hollands and T. E. Unny (<i>Canada</i>)	83	A time series model for K_t with application to global synthetic weather generation
S. Jain and P. C. Jain (Italy)	93	A comparison of the Angstrom-type correlations and the estimation of monthly average daily global irradiation

irradiation

1.4		List of Contents
S. M. Habali, M. A. S. Hamdan, B. A. Jubran and A. I. O. Zaid (Jordan)	99	Assessment and applications of wind energy in Jordan
and A. I. O. Zuid (bordari)		
J. T. O. Kirk (Australia)	107	Effect of scattering and absorption on solar pond efficiency
J. Nicolas and JP. Poncelet (Belgium)	117	Solar-assisted heat pump system and in-ground energy storage in a school building
N. E. Wijeysundera and V. Thevendran (Singapore)	127	A two-dimensional heat transfer analysis of the thermal-trap collector
D. R. Otis and G. F. Jones (U.S.A.)	135	Neutral planes in stratified, thermally driven multiple room enclosures
G. W. Sadler and E. Y. Leung (Canada)	139	A summary of operation results for the air solar heating system for Module 6 of the Alberta Home Heating Research Facility
R. R. Marchini and T. L. Howard (U.S.A.)	147	Maxwell-Garnett theory analysis of thick PbS-Al selective absorbers
S. A. M. Burek, B. Norton and S. D. Probert (U.K.)	151	Analytical and experimental methods for shadow- band correction factors for solarimeters on inclined planes under isotropically diffuse and overcast skies
C. A. Coombes and A. W. Harrison (Canada)	161	Angular distribution of overcast sky short wavelength radiance
Q. Zhao, G. W. Sadler and J. J. Leonard (Canada)	167	Transient simulation of flat-plate solar collectors
	175	Erratum
J. J. O'Gallagher and R. Winston (U.S.A.)	177	Communications Evaluating the economic advantage of two-stage tandem solar concentrators
R. E. Collins and R. Schmid (Australia)	181	Temperature measurement in Dewar type evacuated tubular collectors
	185	Books Received Photovoltaic Power Generation by G. Willeke and G. Grassi (eds.)
	185	The Solar Power Plants at Almeria by G. Wettermark
	185	Solar Energy Applications to Buildings and Solar Radiation Data by T. C. Steemers (ed.)

185 Solar Energy Utilization by H. Yuncu, E. Paykoc and Y. Yener (eds.)

NUMBER 3

Dennis Nullet and Paul C. Ekern (U.S.A.)	187	Articles Modeling clear day insolation at sea level in Hawaii
O. C. Iloje (Nigeria)	191	Parametric effects on the performance of a solar- powered solid absorption refrigerator
G. Camera-Roda and M. Bertelà (<i>Italy</i>)	197	A model of black-liquid solar collector
F. Sick, T. K. Bushulte, S. A. Klein, P. Northey and J. A. Duffie (U.S.A.)	211	Analysis of the seasonal performance of hybrid liquid desiccant cooling systems
M. A. Abdelrahman, S. A. M. Said and A. N. Shuaib (Saudi Arabia)	219	Comparison between atmospheric turbidity coefficients of desert and temperate climates
Joseph J. Michalsky (U.S.A.)	227	The Astronomical Almanac's algorithm for approximate solar position (1950–2050)
F. Vignola and D. K. McDaniels (U.S.A.)	237	Direct beam radiation: Projection onto tilted surfaces
P. D. Lund (Finland)	249	Effect of storage thermal behavior in seasonal storage solar heating systems
Ibrahim A. Olwi and Adel M. A. Khalifa (Saudi Arabia)	259	Computer simulation of the solar pressure cooker
R. J. Aguiar, M. Collares- Pereira and J. P. Conde (Portugal)	269	Simple procedure for generating sequences of daily radiation values using a library of Markov transition matrices
Ali Beba (U.S.A.)	281	Analysis of a solar-heated biogas fermenter
	289	Announcement
		NUMBER 4
John A. Duffie (U.S.A.)	291	Articles Editorial
H. P. Garg and D. S. Hrishikesan (India)	295	Enhancement of solar energy on flat-plate collector by plane booster mirrors
R. Festa, C. F. Ratto, and D. DeGol (Italy)	309	A procedure to obtain average daily values of meteorological parameters from monthly averages
T. A. Reddy and R. A. Attalage (Thailand)	315	Differences in computed annual irradiation on inclined surfaces using isotropic and anistropic sky-diffuse models
X. Berger (France)	321	A simple model for computing the spectral radiance of clear skies

VI .		List of Contents
C. Choudhury, S. L. Anderse and J. Rekstad (Norway)	n, 335	A solar air heater for low temperature applications
Ahmed Y. El-Assy and John A. Clark (U.S.A.)	345	Thermal analysis of a flat-plate collector in multiphase flows, including superheat
David Govaer (U.S.A.)	363	Indoor collector testing with an incandescent simulator
K. K. Gopinathan (South Africa)	369	Empirical correlations for diffuse solar irradiation
D. E. Prapas, B. Norton, E. Milonidis, and S. D. Probert (<i>U.K.</i>)	371	Response function for solar-energy collectors
D. Faiman and A. Zemel (Israel)	385	Low-profile solar water heaters: The mirror booster problem revisited
J. M. Gordon (Israel)	391	Ideal solar concentrators for photoelectrochemical cells
		NUMBER 5
H. Grossi Gallegos and R. Lopardo (Argentina)	397	Articles Spatial variability of the global solar radiation obtained by the solarimetric network in the Argentine Pampa Humeda
D. Pissimanis, G. Karras,V. Notaridou andK. Gavra (<i>Greece</i>)	405	The generation of a "typical meteorological year" for the city of Athens
H. Suehrcke and P. G. McCormick (Australia)	413	The frequency distribution of instantaneous insolation values
H. Suehrcke and P. G. McCormick (Australia)	423	The diffuse fraction of instantaneous solar radiation
S. C. Kaushik (India) S. M. B. Gadhi (Yemen) R. S. Agarwal (India) and R. Kumari (India)	431	Modeling and simulation studies on single/double- effect absorption cycle using water-multicomponent salt (MCS) mixture
S. C. Mullick, A. Malhotra and S. K. Nanda (<i>India</i>)	443	Optimal geometries of composite plane mirror cusped linear solar concentrator with flat absorber
J. M. Gordon (Israel)	457	On optimized solar-driven heat engines
R. W. Stuart and K. G. T. Hollands (Canada)	463	A probability density function for the beam transmittance
A. S. Mehta, N. Pathak, B. M. Shah and S. D. Gomkale (India)	469	Performance analysis of a bittern-based solar pond
	477	Errata
V Dodoo (D		Communication
V. Badescu (Romania)		Comment on the statistical indicators used to evaluate the accuracy of solar radiation computing

models

evaluate the accuracy of solar radiation computing

NUMBER 6

481 Introduction

485 Subject Categories

495 Subject Index

555 Author Index

AUTHOR INDEX

Abdelrahman, M. A., 219 Agarwal, R. S., 431 Aguiar, R. J., 269 Amato, U., 65 Andersen, S. L., 335

Andersen, S. L., 335 Attalage, R. A., 315

Badescu, V., 479
Bansal, N. K., 35
Beba, A., 281
Berger, X., 321
Bertela, M., 197
Boettcher, A., 35
Burek, S. A. M., 151
Bushulte, T. K., 211
Buttner, D., 13

Camera-Roda, G., 197
Caps, R., 13
Choudhury, C., 335
Clark, J. A., 345
Close, D. J., 81
Collares-Pereira, M., 269
Collins, R. E., 181
Conde, J. P., 269
Coombes, C. A., 57, 161
Cuomo, V., 65

DeGol, D., 309 Duffie, J. A., 211, 291

Ekern, P. C., 187 El-Assy, A. Y., 345

Faiman, D., 385 Fanney, A. H., 1 Festa, R., 309 Fontana, F., 65 Fricke, J., 13 Gadhi, S. M. B., 431
Gallegos, H. G., 397
Garg, H. P., 295
Gavra, K., 405
Gomkale, S. D., 469
Gopinathan, K. K., 369
Gordon, J. M., 391, 457
Govaer, D., 363
Graham, V. A., 83
Gutierrez, F., 17

Habali, S. M., 99 Hamdan, M. A. S., 99 Harrison, A. W., 57, 161 Heinemann, U., 13 Hill, D. D., 25 Hollands, K. G. T., 83, 463 Howard, T. L., 147 Hrishikesan, D. S., 295 Hummer, E., 13

Iloje, O. C., 191

Jain, P. C., 93 Jain, S., 93 Jones, G. F., 135 Jubran, B. A., 99

Kadur, A., 13 Kaminsky, F. C., 49 Karras, G., 405 Kaushik, S. C., 431 Kirchhoff, R. H., 49 Kirk, J. T. O., 107 Kirkpatrick, A. T., 25 Klein, S. A., 1, 211 Kumari, R., 431

NUMBER 6

481 Introduction

485 Subject Categories

495 Subject Index

555 Author Index

AUTHOR INDEX

Abdelrahman, M. A., 219 Agarwal, R. S., 431 Aguiar, R. J., 269 Amato, U., 65 Andersen, S. L., 335 Attalage, R. A., 315

Badescu, V., 479
Bansal, N. K., 35
Beba, A., 281
Berger, X., 321
Bertela, M., 197
Boettcher, A., 35
Burek, S. A. M., 151
Bushulte, T. K., 211
Buttner, D., 13

Camera-Roda, G., 197
Caps, R., 13
Choudhury, C., 335
Clark, J. A., 345
Close, D. J., 81
Collares-Pereira, M., 269
Collins, R. E., 181
Conde, J. P., 269
Coombes, C. A., 57, 161
Cuomo, V., 65

DeGol, D., 309 Duffie, J. A., 211, 291

Ekern, P. C., 187 El-Assy, A. Y., 345

Faiman, D., 385 Fanney, A. H., 1 Festa, R., 309 Fontana, F., 65 Fricke, J., 13 Gadhi, S. M. B., 431
Gallegos, H. G., 397
Garg, H. P., 295
Gavra, K., 405
Gomkale, S. D., 469
Gopinathan, K. K., 369
Gordon, J. M., 391, 457
Govaer, D., 363
Graham, V. A., 83
Gutierrez, F., 17

Habali, S. M., 99
Hamdan, M. A. S., 99
Harrison, A. W., 57, 161
Heinemann, U., 13
Hill, D. D., 25
Hollands, K. G. T., 83, 463
Howard, T. L., 147
Hrishikesan, D. S., 295
Hummer, E., 13

Iloje, O. C., 191

Jain, P. C., 93 Jain, S., 93 Jones, G. F., 135 Jubran, B. A., 99

Kadur, A., 13 Kaminsky, F. C., 49 Karras, G., 405 Kaushik, S. C., 431 Kirchhoff, R. H., 49 Kirk, J. T. O., 107 Kirkpatrick, A. T., 25 Klein, S. A., 1, 211 Kumari, R., 431 Leonard, S. J., 167 Leung, E. Y., 139 Lopardo, R., 397 Lund, P. D., 249

Malhotra, A., 443
Marchini, R. R., 147
McCormick, P. G., 413, 423
McDaniels, D. K., 237
Mehta, A. S., 469
Michalsky, J. J., 227
Milonidis, E., 371
Misra, A., 35
Mullick, S. C., 443

Nanda, S. K., 443 Nicolas, J., 117 Northey, P., 211 Norton, B., 151, 371 Notaridou, V., 405

O'Gallagher, J. J., 177 Olwi, I. A., 259 Otis, D. R., 135

Pathak, N., 469 Pissimanis, D., 405 Poncelet, J.-P., 117 Prapas, D. E., 371 Probert, S. D., 151, 371

Ratto, C. F., 309 Reddy, R. A., 315 Rekstad, J., 335 Sadler, G. W., 139, 167
Said, S. A. M., 219
Sawhney, R. L., 35
Schmid, R., 181
Serio, C., 65
Shah, B. M., 469
Shuaib, A. N., 219
Sick, F., 211
Silvestrini, P., 65
Stuart, R. W., 463
Suehrcke, H., 413, 423

Thevendran, V., 127 Tsiligiris, P. T., 41

Unny, T. E., 83

Vignola, F., 237

Wijeysundera, N. E., 127 Winston, R., 177

Zaid, A. I. O., 99 Zemel, A., 385 Zhao, Q., 167

Reproduced	d with the per	mission of Pergamo	on Press Inc., by Uni	versity
•		mission of Pergamo		
•		mission of Pergamo		
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				
•				nibited.

